The listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): Improvement in absorbing center for disposable diapers, such improvement can be used in any kind of absorbing center (2), normally made of cellulose flake (11) properly compacted, forming a coverlet that, in its turn, presents an upper and a lower part with one or more capping (4-6) or still, with no internal capping; ~~characterized by the fact that~~ wherein the formed coverlet initially presents a plurality of absorbing gel grains (16) concentrated on distinct points (30) and strategically distributed throughout such flake coverlet (11), where each point keeps a certain distance from the adjacent points, just as each point concentrates a certain number of grains, such number disposed in the medium part of the thickness (E) of the cellulose flake layer (11), where each absorbing gel point (16) is compacted at least on the upper side of the center (2), forming a cavity (31).

Claim 2 (Currently Amended): Improvement in absorbing center for disposable diapers, according to claim 1, ~~characterized by the fact that,~~ wherein when the absorbing center (2) includes

capping (4-6), presents the internal surfaces of such capping with a thing layer of absorbing gel grains (16), which are previously applied onto such internal surfaces using a sticking component or any glue, so that the grains (16) may remain against the upper and lower surfaces of the flake coverlet (11).

Claim 3 (Currently Amended): Improvement in absorbing center for disposable diapers, according to claim 1, ~~characterized by the fact that~~ wherein the capping (4) with absorbing gel grains (16) is supposed to be placed on the upper and lower part of the coverlet and between the flake coverlet (11) and the plastic film (1).

Claim 4 (Currently Amended): Improvement in absorbing center for disposable diapers, according to claim 1, ~~characterized by the fact that~~ wherein the capping (4) with absorbing gel grains (16) is supposed to be placed on the upper part and between the cellulose flake coverlet (11) and the tissue non-tissue or "non-woven"(5).

Claim 5 (Currently Amended): Process for the making of the absorbing center described in claim~~s~~ 1 ~~though 4~~, composed of the following steps:

a) preparation of the cellulose pulp (10) in rolls or leaves, preferably with the preparation in the shape of bobbin, where the cellulose pulp presents longer or shorter fibers, with different levels of humidity, besides other irrelevant factors;

b) automatic feeding of the cellulose pulp (10) in a mill or defiberer (9), which can be made of a disentangling piece or hammer or other methods, which turn the cellulose pulp (10) into small texture or fibers, herein called flakes (11);

c) introduction of the flakes (11) and absorbing gel grains (16) in the interior of an agglomerating or agglutinating piece (13);

e) transformation of the flakes (11) in a continuous coverlet (M) on the inside of the agglomerating piece (13) and, for that purpose, such flakes (11) are aspired by a vacuum system (17) against a conveyor belt (18) over which such continuous coverlet is formed (M) which, in its turn, is softly compacted and moves continuously forward;

f) allocation of the capping or "tissue" paper (4) through the use of de-bobbinators (21) and glue (22), so that these papers can be placed only over the pulp, or be placed under the pulp, or may still have both simultaneous conformation over and under the cellulose pulp with gel;

g) the coverlet (M) made of cellulose pulp with gel, added with "tissue" paper or papers (4), occasionally sticky, is cut or segmented by a cutting knife (23), usually rotational, in the determined and specified shapes, after which the absorbing center (2) is effectively formed;

h) disposing the centers (2) over a plastic film (1) made of polyethylene, which constitutes the external part of the diapers, just as such plastic film (1) is inserted from below, i.e., the de-bobbinator (24) is usually positioned under the main machine, where the plastic film (1) moves and receives the hot glue (25), by means of sprinkling, blades or continuous traces, in the determined and necessary places and amounts and, therefore, to such plastic film (1) the absorbing cellulose center (2) is attached made of cellulose pulp (11) with gel (16) and occasionally "tissue" paper (4);

i) application of a tissue non-tissue or non-woven upper layer (5) through a de-bobbinator (26), using hot glue (27) as well, on the desired places and quantities, by means of sprinkling, lines or blades, when making its de-bobbing and insertion in the assembling of the diapers;

j) as an option, a layer called "transfer layer" or transferring layer (6) is included, which is applied through a de-bobbinator (28) and its respective gluing (29), being this layer also a tissue non-tissue and its positioning being made

anterior to the external tissue non-tissue layer (5) and placed under it;

k) allocation of the other components for the making of the diaper: fecal-barrier, frontal sticking plastic tape ("frontal tape") and the lateral sticking tapes, the elastic tapes and other occasional components that vary according to the kind of diaper.

~~characterized by the fact that~~ wherein it involves the following complementary steps between step (e) and step (f):

e1) creation of longitudinal furrows in the upper part of the coverlet (M), such furrows being placed in parallel among each other and starting before the tray (16), where they are made by route tracers (37);

e2) disposing a plurality of absorbing gel grains (16) concentrated in distinct points (30) and strategically distributed throughout each longitudinal furrow of such coverlet (M), where each point remains at a certain distance from the adjacent points, just as each point concentrates a certain number of grains, being such number disposed in the medium part of the thickness (E) of the coverlet (M);

e3) compacting of each point (30) of absorbing gel (16), such compacting being made at least on the upper side of the coverlet (M) forming a cavity (31);

e4) closing of the furrows with route closers (38) capping each compacting (31) so that the absorbing gel grains (16) may be encapsulated;

f1) application of absorbing gel grains (16) over the recently applied hot glue (22) on the upper transfer layer of the tissue non-tissue or on the "tissue" paper (4), such gel applied there attaching to the glue, only on the pre-selected and determined desired places and quantities, which shall better and faster absorb the liquids, just as this place is usually located on the central longitudinal areas of the diaper with small differences in place, due to sexual variation of the users, but, in any case, the absorbing gel (16) remains with its grains exclusively turned to the inside of the diaper and near the areas of larger absorption;

f2) putting gel on the deeper layers and on the inside of the coverlets of the diapers, i.e., on the "tissue" paper (4) on the lower and anterior side to the external construction and protection plastic (1).

Claim 6 (Currently Amended): Process for the making of the absorbing center, according to claim 5, ~~characterized by the fact that~~ wherein steps (e1) through (e4) may take place inside or outside the agglutinating piece (13).

Claim 7 (Currently Amended): Machine for the making of the absorbing center described in claim~~s~~ 1 ~~through 4~~ and to make the process described in claim~~s~~ 5 ~~and 6~~, composed of a mill or a de-fiberer (9), which can be made of a disentangling piece or hammer or other methods, which turn the cellulose pulp (10), prepared in rolls or leaves, into small texture particles or fibers, herein, called flakes (11); just as the de-fiberer (9) is connected through a feeding duct system (12), to another set called agglomerating or agglutinating piece (13) which, in its turn, is also connected to an upper tray (14) with a lower vacuum chamber (17) which, along with a conveyor belt (18), form the coverlet (M), which slides to pass through other parts of the machine, which includes upper and lower de-bobbinators (21) with their respective glue disposers (22) for the placing of the "tissue" papers (4), upper and lower, after which such coverlet is cut by a cutting knife (23), usually rotational, in determined and specified shapes and sizes, after which the absorbing center (2) is effectively formed, which, in its turn, through other bobbins (24-26-28), receives other blade materials layers (1-5-6), using other glue disposers (25-27-29); ~~characterized by the fact that~~ wherein the tray (14) presents its lower part equipped with multiple exits represented by a chain of vertical dispenser spouts (32), strategically placed in a transversal way, each having a lower valve or regulating device (33) and respective

trigger (34) turned back and facing a compressor roll (35) placed at the end of the cellulose flake coverlet forming chamber (11) and before or after their exit from the agglomerating piece (13) or still, out of it, just as the external diameter of the compressor roll (35) distributes the plurality of compacting protuberances (36), which occupy cooperating positions so that, initially, they may start the triggers (34) of the regulators (33) so that the predetermined doses of gel grains (16) may be dispensed over the flake coverlet (11), forming the concentrated points (30), that, in turn, logically on in tune, each point (30) is compacted (31) by the same protuberances (36), in a way that, before the dispenser spouts (32) and after the compressor roll (36), layers with the same number of route tracers (37) and route closers (38) are displayed, being those placed before the unloading of the gel grains are cooperating to form furrows or tracks that flow under the regulators (32) and, with that, the upper cellulose pulp layer is opened to guarantee and make sure that the absorbing gel grains (16) be placed in the interior part of the flake coverlet, while the second set of route closers (38) do exactly the opposite, i.e., close the so called track, covering each compaction (31) so that the absorbing gel grains (16) may be encapsulated.

Claim 8 (Currently Amended): Machine for the making of the absorbing center, according to claim 7, ~~characterized by the fact that~~ wherein the mouthpiece (41) is conjugated with as aspiring and transporting system by flow of air combined with the storage (42) and with an absorbing gel grains (16) returning conductor (43) to the mouthpiece (40).